

SECTION 15763

AIR HANDLING UNIT WITH COILS

PART 1 - GENERAL

- 1.1 Provide fans bearing AMCA certified rating seal.
- 1.2 Provide ARI Standard 410 rated and certified coils.
- 1.3 Provide filter media with UL Class I or Class II rating, as required by local authorities.
- 1.4 Provide and install all items as listed in schedule on drawings, location as indicated on drawings, complete in all respects to function as intended.
- 1.5 Select size, NBS test efficiency, initial and final resistance of filters to agree with types specified.
- 1.6 Size, type and capacity as drawn.

PART 2 - PRODUCTS

2.1 AIR HANDLING UNIT

A. Casing:

1. Sectional construction.
2. Mount equipment and support exterior steel panels from structural steel frame. Reinforce panels. Equipment shall not be mounted on sheet metal enclosure.
3. Provide hinged double wall access doors for access to sections and components requiring servicing. Provide fasteners and gasket seals.
4. Minimum 16-gauge steel finished in baked enamel primer followed by exterior application of enamel. Weld or bolt and seal seams. Corrosion treat all inside and outside surfaces.

B. Drain Pan: Double wall stainless steel with closed cell insulation between pans. Provide drain pan under entire coil and fan section.

C. Insulation:

1. Line unit panels with 1 inch thick neoprene coated glass fiber insulation, "K" value at 75 degrees F. Maximum 0.26 BTU/in/sq.ft./degree F/hr. UL fire hazard classification: Flame spread 25, smoke developed 50.
 2. Insulate the entire unit. Insulate condensate pan to prevent condensation on underside of unit.
- D. Fans: Forward curved double width double inlet centrifugal type with multi-blade wheel, statically and dynamically balanced. Bearings shall be self-aligning ball bearing having a life expectancy of 200,000 hours. Extend lubrication lines to outside of unit. Mount fan and motor within casing on a common basis and isolate from unit with spring isolators. Connect discharge to unit with flexible connection.
- E. Motors and Drive: 1750-RPM open drip proof high efficiency type within the unit on an adjustable steel base and variable pitch adjustable sheaves. Fan drive shall be designed for a minimum 1.5 service factor. Locate within unit housing.
- F. Cooling Coils:
1. General: Extended surface type with copper tubes, staggered in direction of airflow and mechanically expanded into fins. Fins: aluminum spaced minimum 6 per inch and maximum 10 per inch and 1-1/2" per row of tubes. Make all joints with silver solder which has a melting point above 1000 degrees. Cooling coils shall have stainless steel or hot dipped, galvanized after fabrication casings.
- G. Filter Section: 2' thick glass fiber media with minimum efficiency of 30%, throwaway type with access doors on both sides. Filter velocity not be exceed 300 FPM.

PART 3 - EXECUTION

3.1 INSTALL

- A. Units on rubber or fiberglass isolators with internally isolated fan and motor.
- B. Install according to manufacturer's instructions.

END OF SECTION